EPA Comments on the Proposed Plan
for Sites 109, 125, 142, 144, 146 and PICA-203, June 2013
Picatinny Arsenal, New Jersey
November 25, 2014

General Comments

1. Each building description should have their current use status (active, not active, abandoned, no longer exists) listed.
2. A brief description should be provided in the site backgrounds of any removal actions that were done (eg: cubic yards of soil removed, number of dry wells removed, etc).
3. The use of the term "PICA" should be clarified early in the document. Details should be provided as to its purpose. On what basis was the PICA-111 grouping determined? In addition, the use of the term 'site' to identify an operable unit should be explained as originating from the ANL Concept Plan.
4. A section should be added that summarizes the detailed analysis of the alternatives considered in the feasibility study for the PICA-111 Sites (40 CFR Section 300.430 (f)(2)(i)). The section should be inserted between the Summary of Site Risks and the Summary of the Preferred Response Actions.
5. The elevated levels of contaminants identified in the site figures above LOCs should be discussed in the site histories.

Specific Comments

1. Cover page – Issuing a proposed plan is an inherently governmental function so it should not say that it is "prepared" by the Army's contractor.

2. Introduction and Purpose, first paragraph, page 1 – 'Response Action' should not be abbreviated since it is only used 2 or 3 times in the document and could be confused with 'remedial action'.

3. Introduction and Purpose, third paragraph, page 1 – In the first sentence of the paragraph, reference is made to the term 'Concept Sites'. This term should be defined in the text or in the Glossary of Terms.

4. Introduction and Purpose, third paragraph, page 1 – No description is provided for Site PICA 203. It should also be explained why it is referred to as Site PICA 203.

5. Introduction and Purpose, third paragraph, page 1 – In the second sentence change 'this site' to 'PICA-111 Sites'.

6. Introduction and Purpose, fifth paragraph, page 1 –
   a. In the first sentence, change 'site' to 'PICA-111 Sites'.

b. Revise the second sentence as follows: "The final selection of the ~~RA~~ *remedy* will ~~not~~ occur ~~until~~ after the public comment period *and a review of the public comments by the Army and USEPA,* to allow for the possibility of new information~~,~~ or…." (Note: added words are italicized)

7. Introduction and Purpose, sixth paragraph, page 1 – Near the end of the paragraph it is stated that: "In addition, this PP fulfills the statutory goal of the Defense Environmental Restoration Program (DERP)." What statutory goal is fulfilled by DERP? An explanation should be provided in the text.

8. Introduction and Purpose, seventh paragraph, page 1 – Replace the paragraph with the following:

> "For the six sites within PICA-111, there are no unacceptable human health risks for the current or reasonably anticipated future uses based on exposure to soil. Furthermore, ecological risks are within acceptable ranges and the PICA-111 Sites are not acting as sources of contamination to other areas of Picatinny; therefore, the preferred remedy is no further action for soils. Because residual concentrations at portions of PICA-111 sites may exceed levels that would not allow for unrestricted use or unlimited exposure, land use will be monitored and annual certification will be submitted to EPA and NJDEP that land use remains protective of human health. The results of these annual certifications will also be summarized in five-year reviews. Picatinny already has institutional controls and land use controls (ICs and LUCs) in place as components of regular facility operations that will assure that unrestricted use does not occur in the future.
>
> Groundwater for one site of PICA-111 (Site 125, described in further detail, below) was addressed as part of an earlier groundwater decision for Picatinny, the Mid-Valley operable unit [add footnote: Please refer to the Record of Decision for the Mid-Valley operable unit, 2012]. Risks associated with exposure to groundwater for the remaining sites of PICA-111 are within EPA's acceptable risk range of 1×10^{-4} to 1×10^{-6} for all potential receptors. Risk levels due to exposure to groundwater are one line of evidence regarding whether a groundwater remedy is required or not. However, the overriding principle regarding contaminated groundwater is that it must be returned to its beneficial use (drinking water in the case of Picatinny) in a reasonable timeframe. Several monitoring wells are contained levels of lead, arsenic, iron and manganese in excess of the promulgated drinking water standards for those chemicals. The aforementioned chemicals have not been identified as contaminants of concern for the PICA-111 sites based upon known past practices that might have led to a release, or based upon soil sampling. Furthermore, groundwater contaminants exceeding promulgated standards may be attributable to conditions found in the geologic formation, rather than to activities associated with Picatinny Arsenal. Finally, the elevated levels detected were sporadic in extent, and do not indicate a pattern of groundwater contamination. Therefore, the preferred remedy for

groundwater is no further action, with ICs to prevent contact with contaminated groundwater, and monitoring. As with the soils for PICA-111, the results of the groundwater monitoring and ICs will be summarized in five-year reviews while exceedances of groundwater standards are still present. An IC for groundwater, a base-wide Classification Exception Area (CEA), is already in place. As part of the preferred remedy, groundwater monitoring will be conducted to determine if lead, arsenic, iron and manganese are still present at PICA-111 Sites above their respective drinking water standards. In addition, further studies will be performed to determine whether these constituents are attributable to "background" (i.e., from components of the local geology and not derived from human practices)."

[Note: Iron and manganese were added to the contaminants found in groundwater since they exceeded the respective LOCs. They should be added to any further discussion in the text regarding contamination found in groundwater.]

9. Picatinny Site Background, fourth paragraph, page 2 –
   a. Insert 'The' before 'Picatinny Office of the Chief of Security Division'.
   b. Revise the last two sentences of the paragraph as follows: "The CEA is updated biennially and provided to NJDEP for review."

10. Figure 1, Picatinny Arsenal Location Map – PICA-203 appears on the insert as Site 203. The reference to PICA-203 should be consistent with the text.

11. Picatinny Site Background, seventh paragraph (first full paragraph), page 4 –
   a. This paragraph should explain why this proposed plan addresses sites from Phase I and Phase II and whether the Army is following the original Area grouping of addressing sites with the greatest potential of contamination first. It should also be clarified that the PICA-111 Sites are a subset of sites in Areas F and I and that the remaining sites within those areas have been or will be addressed.
   b. Change 'PICA-111 sites' to 'PICA-111 Sites'.

12. Picatinny Site Background, eighth paragraph, page 4 – Change 'PICA-111 sites' to 'PICA-111 Sites'.

13. Picatinny Site Background, page 4 – After the first full paragraph on page 4, insert a paragraph summarizing the groundwater remedies in place on a site basis, area-wide basis and multi-area basis (reference the Mid-Valley OU multi-Areas addressed, ie: F, G, H and L). State that the approach is to address groundwater contaminant plumes as they exist; not limited by site or area boundaries.

14. PICA-111 Sites Background, page 4 –In the last sentence change 'PICA-111 sites' to 'PICA-111 Sites'.

15. Area I Sites, Site 109 – Former Buildings 445 and 445-D, Pyrotechnic Plant, first paragraph, page 4 – In the second sentence, insert ‘former’ as in ‘consists of former Buildings 445 and 445-D’.

16. Area I Sites, Site 109 – Former Buildings 445 and 445-D, Pyrotechnic Plant, second paragraph, page 4 – If the functions of the Fabrication Capacity Program and Toxic Energetic Cleanup Program are important enough to reference, then their function should be explained or the references deleted.

17. Area I Sites, Site 109 – Former Buildings 445 and 445-D, Pyrotechnic Plant, third paragraph, page 4 – When was the placarding around the sump performed? The date should be referenced if it is known.

18. Area I Sites, Site 109 – Former Buildings 445 and 445-D, Pyrotechnic Plant, fourth paragraph, page 4 –
    a. In the first sentence delete ‘(KVA)’ as it is not used again.
    b. In the first sentence delete ‘(TR-445)’ as it is unnecessary.

19. Area I Sites, Site 109 – Former Buildings 445 and 445-D, Pyrotechnic Plant, fifth paragraph, page 4 –
    a. Reference is made to Building 94 in the first sentence of the paragraph as its operations possibly being connected to Building 445-D operations. The phrase ‘possibly in’ should be deleted from the sentence or the reference to Building 94 should be deleted.
    b. In the last sentence of the paragraph, change ‘declared hazardous’ to ‘declared unsafe'.

20. Area I Sites, 203, Former Buildings 333 and 347, first paragraph, page 4 – The third sentence states work at these facilities included laboratory testing using poisonous gases in experiments for propellants then the next sentence states that there is no history of chemical warfare material at Picatinny Arsenal. These are conflicting statements and there apparently is a history of chemical warfare material at Picatinny since it was documented in the history for Buildings 333 and 347.

21. Area I Sites, 203, Former Buildings 333 and 347, second paragraph, page 4 – Field reconnaissance could not find the vault but it is depicted on Figures 2 and 9 (Former Solvent Tank). Revise text or figure as necessary.

22. Area F Sites, Site 125 – Buildings 172 and 183, Office Buildings and Lubricant Testing Area, page 5 – This section should explain that groundwater at this site is being addressed within the Mid-Valley operable unit and summarize the results of the groundwater sampling at the site.

23. Area F Sites, Site 125 – Buildings 172 and 183, Office Buildings and Lubricant Testing Area, first paragraph, page 4 – 5 –
    a. Regarding Building 172, it is stated that "The building was constructed in 1942 as an ordnance administration building and is still used for administrative purposes." It is not clear what release mechanism would be involved with the administrative activities that took place at Building 172. The text should clarify what activities at Building 172 potentially released contamination to the environment.
    b. Is Building 183 still active? If it is still active and still generating these wastes, it should be explained. The current status of each building description in this proposed plan should be cited (active, not active, abandoned, no longer exists).

24. Area F Sites, Site 125 – Buildings 172 and 183, Office Buildings and Lubricant Testing Area, last paragraph, page 5 – The paragraph indicates that 'several larger corrugated pipes discharged liquid material to a stream northwest of Building 183'. Has the stream been sampled and if so, what were the results?

25. Area F Sites, Site 125 – Buildings 172 and 183, Office Buildings and Lubricant Testing Area – Groundwater at Site 125 is being addressed by the Mid-Valley operable unit. However, the results of the groundwater sampling should be discussed to verify that there is not a continuing source of contamination to groundwater at Site 125.

26. Area F Sites, Site 142, Former Building 435, Propellant Processing Plant, second paragraph, page 5 – Seep vat and seep pit appear to interchangeable terms, why use both terms?

27. Area F Sites, Site 142, Former Building 435, Propellant Processing Plant, second paragraph, page 5 – Why was there a RCRA closure performed at this site? Details should be provided including whether there was a permit and what it was for. In addition, describe how the exceedance of copper was addressed.

28. Area F Sites, Site 142, Former Building 435, Propellant Processing Plant, page 5 – A removal was performed at Site 142 in 2004. This should be described in this section.

29. Area F Sites, Site 142, Former Building 435, Propellant Processing Plant, page 5 – The perchlorate detections in groundwater should be discussed in this section.

30. Area F Sites, Site 144 – Building 462, Propellant Plant, page 5 – Near the middle of the paragraph, the tense changes from past to present. Consequently, the following sentence should be revised as follows: "*Currently*, the building is divided into nine rooms which are used in the research of energetic materials." (added word is italicized)

31. Area F Sites, Site 144 – Building 462, Propellant Plant, page 5 – A sentence near the end of the paragraph on page 5 refers to radon gas. The term 'naturally occurring' should be inserted before 'radon gas'.

32. Area F Sites, Site 144 – Building 462, Propellant Plant, page 6 – Near the end of the paragraph, it states wastes from Building 462 are sent to the Burning Grounds for disposal. Since the Burning Grounds has been closed, this statement should be updated.

33. Current and Future Use, page 6 – This section should explain that this is an active installation and what the ongoing activities are, and the expectations that the facility will continue to be operated and maintained by the Army for the foreseeable future.

34. Identification of Environmental Contamination, page 6 – It is requested that this section include a brief summary of the types samples collected and the results for each site. This should take about a page in text.

35. Levels of Concern, first paragraph, page 6 – The acronym 'ISRS' is not correct for NJDEP Soil Remediation Standards.

36. Levels of Concern, third paragraph, page 6 – Change 'Sites' to 'sites' and 'PICA-111' to 'PICA-203'.

37. Levels of Concern, fourth paragraph, page 6 – It should be explained in this paragraph what standards the surface water and sediment sampling results were screened against.

38. Figure No. 2, Site 109 – In the title box, insert 'Former Buildings 445 and 445-D' after 'Site 109'.

39. Figure No. 2, Site 109 and Figure No. 9, PICA-203 – These two figures address different sites but have overlapping sampling results such as PICA-PGL-2S and PICA-PGL-3S. Unless there is a good reason, the sampling results for each site should be mutually exclusive.

40. Figure No. 4, Site 125, Buildings 172 and 183 – A note should be added to this figure explaining that no exceedances of LOCs were detected at this site.

41. Figure No. 5, Site 142, Former Building 435 – The pre-removal lead level of 103,000 ppm in soil should be discussed in the site background. Add post-excavation sampling results to the figure.

42. Figure No. 7, Site 144, Building 464 – There was, apparently, no groundwater investigation done at this site. This should be explained in the site description.

43. Figure No. 8, Site 146 –

    a. The data flag for Sample SS146-2A in the hard copy of the proposed plan has a dark line through it that is obscuring the sample results.
    b. The risk assessment identifies antimony as hazard driver for the construction worker. The figure should locate and provide the level of antimony detected in soil even if it is below its LOC.
    c. RDX was detected in soil above its LOC. This should be discussed in the text and risk assessment section as to whether it contributed to site risk levels.

44. Summary of Site Risks – This section is lacking a table with the HHRA information (i.e., all receptors and media evaluated in each site/PICA, risk numbers, COPCs if applicable, etc.). As stated in the first paragraph of the summary of the site risks section, several HHRAs and re-evaluations were conducted for the PICA-111 Sites. References to all these documents need to be provided. A copy of each document should be included in appendix to the upcoming ROD document.

45. Summary of Site Risks – The report does not provide an adequate amount information to determine if the remedy for each site is appropriately protective of ecological receptors. The ecological risk summary for each of the sites is limited to one bullet indicating that ecological risks are not a concern. Further information should be incorporated from the ecological risk assessments for each site justifying the conclusion.

46. Summary of Site Risks, first paragraph, page 6 –
    a. Change 'risk assessment was' to 'risk assessments were' in the sentence "Further risk assessment was completed to evaluate the groundwater ingestion pathways…"
    b. It is stated that "the sites are currently used for professional/industrial purposes with no plans to change the use in the foreseeable future." This statement should be revised if there are sites addressed by this document which are not currently in use.
    c. Insert 'by the Army' after 'professional/industrial purposes".

47. Summary of Site Risks, Area F Sites, Site 146, page 15 –
    a. Significantly elevated contamination was found in the soil at Site 146. However, the onsite buildings were removed and the soil was regraded prior to further delineation. It was noted previously that additional soil samples would be collected. Further information should be included regarding the results of this sampling effort.
    b. Second bullet – Replace '(Phase I 2A/3A RI)' with the appropriate document from the list of reference, eg: Shaw, 2005c.
    c. The third bullet states that: 'lead concentrations in soil are a concern for the construction worker based on the lead model results'. If this is the case, NFA with monitoring of land use may not be an appropriate remedy.

48. Summary of Site Risks, Area I Sites, Site 109, page 15 – The ecological risk summary for Site 109 indicates that the ecological risks are not a concern. However, the results of the Screening Level Ecological Risk Assessment found risks to small mammals associated with mercury and arsenic in the surface soil. This information should be discussed in the Proposed Plan.

49. Summary of Site Risks, Area I Sites, PICA 203, page 15 – The ecological risk summary indicates that the ecological risks are expected to be minimal. However, it is not clear if a screening level ecological risk assessment was conducted for this site. The site is an open field adjacent to the Green Pond Brook and may offer habitat to ecological receptors. Therefore, further information should be included regarding this site.

50. Summary of Site Risks, Area I Sites, PICA 203, page 15 – Change the third bullet to read: "Ecological risks are not considered to be significant."

51. Summary of Site Risks, PICA-111 Groundwater, page 15 –
    a. Risk due to exposure to groundwater is secondary consideration to the statutory requirement to return groundwater to its beneficial use in a reasonable timeframe. Add text to this effect.
    b. The last sentence indicates that the groundwater risk assessment evaluated the potential for ecological risk. This is not normally done. Revise as necessary.
    c. This section should indicate that a risk due to exposure to groundwater was calculated for each site as applicable.
    d. In the second line insert 'and' after 'the outdoor maintenance worker'.
    e. Add a period to the last sentence of the paragraph.
    f. What follows PICA-111 Groundwater on page 15 to page 16 is not a continuation of PICA-111 Groundwater but a conclusion of risk summary for the PICA-111 Sites. Revise as necessary.
    g. First paragraph, page 16 – It appears 'this site' should be replaced with 'PICA-111 Sites'.
    h. Second paragraph, page 16 – Delete 'however' from the second sentence.

52. Summary of the Preferred Response Actions, second paragraph, page 16 – Please refer to Specific Comment 47.c. regarding lead levels being a concern for a construction worker at Site 146.

53. Summary of the Preferred Response Actions, fourth paragraph, page 16 – The paragraph is inconsistent as the first sentence states that detections lead and arsenic were not shown to be the result of a site release whereas in other parts of the document it states that groundwater monitoring will be done to determine whether it is site related or attributable to background. In addition, iron and manganese should be added to the chemicals that will be monitored.

54. Community Participation, Army's Review of Public Comment, page 17 –
    a. In the first sentence insert 'and USEPA' after 'The Army'.
    b. In the second sentence, delete 'Army's'.

55. References, page 20 – References that are not referred to in the document should be deleted as this list of references is not a complete Administrative Record for the PICA-111 Group of Sites.